EXHIBIT 2

FILE HISTORY

US 6,507,353

PATENT: 6,507,353

INVENTORS: Huard, Godot

                     Fortier, Philippe

TITLE: Influencing virtual actors in an interactive
                     environment

APPLICATION
NO: US1999459049A

FILED: 10 DEC 1999

ISSUED: 14 JAN 2003

COMPILED: 22 FEB 2012

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Washington, D.C. 20231
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,049	12/10/1999	GODOT HUARD	14341-1US-JA	9626

20988 7590 05/08/2002

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EXAMINER
THAI, CUONG T

ART UNIT	PAPER NUMBER
2173	6

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No. 09/459,049	Applicant(s) GODOT HUARD ET AL.
	Examiner CUONG T. THAI	Group Art Unit 2173

---The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address---

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE __THREE__ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) __1-22__ is/are pending in the application.

☐ Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) __1-22__ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

   ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

   ☐ received.

   ☐ received in Application No. (Series Code/Serial Number) _____.

   ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   *Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). __5__   ☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892   ☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948   ☐ Other _____

Office Action Summary

Part III DETAILED ACTION

Specification

1.   Claims 1-22 are presented for examination.

2.   Applicants are reminded of the duty to fully disclose information under 37 CFR 1.56.

Claim Rejections - 35 USC § 112

3.   Claims 19-20 and 22 are rejected under 35 U.S.C. 112, second paragraph:

Claim 19 is rejected under rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out which of the vector's is being referred to by "said

vector".

Claim 20 is rejected under rejected under 35 U.S.C. 112, second paragraph, because is

insufficient antecedent basis of "said list of parameters for the psychological factor of hunger".

Also, claim 20 does not make sense when compared to claim 16 and it is not clear how the table is

operated.

Claim 22 is rejected under rejected under 35 U.S.C. 112, second paragraph, because it

conflicts with the equation for hunger as recited in claim 20(i.e., Reaction = Hunger*Interest

magnitude/(distance-10) compare to equation -S / (d-10) in claim 20).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in

section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the

manner in which the invention was made.

5. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moezzi et al.

(USPN: 5,850,352) hereinafter Moezzi in view of Perlin et al. (USPN: 6,285,380) hereinafter

Perlin.

As per claims 1, Moezzi teaches a method for generating a behavior vector for a virtual actor in an interactive theater, the method comprising:

providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theater area which a number of visitors are free to move about, said sensors generating sensor signals is taught by Moezzi as the technique of Fig. 1 shows the relative placements of all four cameras(see column 36 lines 1-2) of a video data analyzer for detecting and for tracking scene objects and their locations (see abstract). In the immersive video system of Moezzi, visual processing algorithms are used to extract information about the object motion and activity....This representation can then be used to construct accurate immersive environments based on real world object behavior and events (see column 23, lines 29-38);

interpreting sensor signals to provide at least one physical characteristic signal including position information, wherein physical characteristic signal provides information on visitor activity and location within theater area is taught by Moezzi as the technique of synthesis is in accordance with user-specified parameters of presentation, including presentations that are any of panoramic, magnified, stereoscopic, or possessed of motional parallax (see abstract) and of a video data analyzer for detecting and for tracking scene objects and their locations (see abstract). In the immersive video system of Moezzi, visual processing algorithms are used to extract information about the object motion and activity....This representations can then be used to construct accurate immersive environments based on real world object behavior and events (see column 23, lines 29-38), and immersive video so far presented has used multiperpective video and

a priori maps to construct three dimensional models that can be used in interaction and immersion for diverse virtual world applications (see column 39, lines 20-24);

Moezzi, however, doesn't disclose the limitations of providing a behavior model for at least one virtual actor, analyzing at least one physical characteristic signal and behavior model for at least one virtual actor to generate a behavior vector of at least one virtual actor using position information and at least one physical characteristic, and whereby a virtual actor reacts and interacts with visitors;

Perlin discloses providing a behavior model for at least one virtual actor, analyzing at least one physical characteristic signal and behavior model for at least one virtual actor to generate a behavior vector of at least one virtual actor using position information and at least one physical characteristic, and whereby a virtual actor reacts and interacts with visitors as the technique of manipulating the geometry of one or more animated characters displayed in real-time inaccordance with an actor behavior model (see column 3, lines 23-25), at run-time, an actor's movement and behavior are computed by interating an update cycle that alternates between the Animation and Beavior Engines (see column 4, lines 17-20) and the user can employ these widgets to trigger actions and scripts at any level of the actor's behavior hierarchy. Directing the actions of one or more animated actors enables users to enter the virtual environment. By making this interface a scriptable choreograph the interaction between the virtual actors and human participants (see column 14, lines 52-59);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitations of providing a behavior model for at least one virtual actor, analyzing at least one physical characteristic signal and behavior model for at least one virtual actor to generate a behavior vector of at least one virtual actor using position information and at least one physical characteristic, and whereby a virtual actor reacts and interacts with visitors by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by providing a user interface from where a virtual actor can communicate and interact to other users and objects in the virtual space.

As per claim 2, the limitation of wherein at least one physical characteristic is one of position, sound and movement is taught by Moezzi as the technique of Position Selection (see Fig. 2). This claim is therefore rejected for the reason as set forth above.

As per claim 3, the limitation of wherein plurality of positions is at least four positions is taught by Moezzi as the technique of Fig. 1 shows the relative placements of all four cameras(see column 36 lines 1-2) and Fig. 1a of seven positions of six cameras. This claim is therefore rejected for the reason as set forth above.

As per claim 4, wherein information on visitor activity and location is represented by a contour map of interactive theater is also taught by Moezzi as the technique of using   .

multiperpective video and priori maps to contruct three dimensional models that can be used in interaction and immersion for diverse virtual world applications (see column 39, lines 20-23). This claim is therefore rejected for the reason as set forth above.

As per claim 5, the limitation of wherein sensors are at least one of motion detectors, tactile plates, microphones, cameras, body language detectors is taught by Moezzi as the technique of the relative placements of all four cameras(see column 36 lines 1-2) and Fig. 1a of seven positions of six cameras. This claim is therefore rejected for the reason as set forth above.

As per claim 6, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of wherein virtual actor is a virtual beluga;

Perlin discloses the limitation of wherein virtual actor is a virtual beluga in term of using the geometric model 10, an author is able to build any of a variety of articulated characters. Actors can be given the form of humans, animal, animated object or imaginary creatures (see column 4, lines 36-39);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitation of wherein virtual actor is a virtual beluga by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by allowing any form of actor to join-in, communicate, and interact with the other users.

As per claim 7, the limitation of providing a virtual environment database including information on all actors in interactive theater is taught by Moezzi as the technique of "virtual world" development and analysis (see column 23 lines 52) for variety of visual computing operation, modeling and visualization technique, and multimedia database methodologies to (i)synthesize and (ii) manage a rich and dynamic representation of object behavior in real-world environments monitored by multiple cameras (see column 23 lines 58-63). This claim is therefore rejected for the reason as set forth above.

As per claim 8, the limitation of comprising step of providing a virtual environment stimulus generator, wherein virtual environment stimulus generator analyzes virtual environment database and generates a virtual environment stimulus is taught by Moezzi as the technique of an Environment Model (EM) is a hierarchical representeation of (I) the structure of an environment and (ii) the actions that take place in this environment. The EM is used as a bridge between the process of analyzing and monitoring the environment and those processes that present information to the viewer and support the construction of "immersive visual reality" based on the video data input (see column 23 line 64 to column 24 line 3) and for variety of visual computing operation, modeling and visualization technique, and multimedia database methodologies to (i)synthesize and (ii) manage a rich and dynamic representation of object behavior in real-world environments monitored by multiple cameras (see column 23 lines 58-63). This claim is therefore rejected for the reason as set forth above.

As per claim 9, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of virtual environment stimulus is a new actor creation;

Perlin discloses a new actor creation as the technique of using Behavior Engine that enable authors to create sophisticated rules governing how actors communicate, change, and make decisions. The Behavior Engine is resposible for both higher-level capabilities (such as going to store or engaging another actor in a conversation) and determining which animation to trigger (see column 3, lines 38-43);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitation of a new actor creation by Perlin for that of Moezzi's virtual environment stimulus invention. By doing so, the system would be enhanced by providing a user interface from where more actors can joining, communicate, and interact with other users.

As per claim 10, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of wherein virtual environment stimulus is added to said at least one physical characteristic signal;

Perlin discloses the limitation of wherein virtual environment stimulus is added to said at least one physical characteristic as the technique of using Behavior Engine that enable authors to create sophisticated rules governing how actors communicate, change, and make decisions. The Behavior Engine is resposible for both higher-level capabilities (such as going to store or engaging

another actor in a conversation) and determining which animation to trigger (see column 3, lines 38-43);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitation of wherein virtual environment stimulus is added to said at least one physical characteristic by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by providing a user interface where more actors can joining, communicate, and interact with other users.

As per claim 11, due to the similarity of this claim to that of claims 9 and 10, this claim is therefore rejected for the same reason as set forth above.

As per claim 12, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of wherein said visitor can be an adult, a child or an animal;

Perlin discloses the limitation of wherein said visitor can be an adult, a child or an animal as the technique of using the geometric model 10, an author is able to build any of a variety of articulated characters. Actors can be given the form of humans, animal, animated object or imaginary creatures (see column 4, lines 36-39);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitation of wherein said visitor can be an adult, a child or an

animal by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by allowing any actor to join-in, communicate, and interact with the other users.

As per claim 13, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of behavior vector is one of a repulsion vector or an attraction vector;

Perlin discloses the limitation of behavior vector is an attraction vector in term of if the autor provides a smiling face as a deformation target, he can then declare SMILE to be DOF (degree of freedom)(see column 5, lines 5-7);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitation of behavior vector is an attraction vector by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by allowing any actor to build a data structure of behavior in order to communicate with the others in virtual space.

As per claim 14, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitations of wherein generating a behavior vector comprising adding a reaction for each physical characteristic signal, using behavior model and position information to an overall reaction to generate a behavior vector;

Perlin discloses the limitations of wherein generating a behavior vector comprising adding a reaction for each physical characteristic signal, using behavior model and position information to

an overall reaction to generate a behavior vector as the technique of builds a data structure

containing the x,y,z displacement for each such vertex (see column 5, lines 4-5), an author uses

DOFs to build actions (see column 5, lines 50-51), the user interface 50 allows a user to interact

with both the Behavior Engine 30 and Animation Engine 20 of an animated actor. The result of a

user's actions can cause change in the system anywhere from high level scripts to low level

actions (see column 14 line 64 to column 14 line 1);

It would have been obvious to one having ordinary skilled in the art at the time the

invention was made to include the limitations of wherein generating a behavior vector comprising

adding a reaction for each physical characteristic signal, using behavior model and position

information to an overall reaction to generate a behavior vector by Perlin for that of Moezzi's

invention. By doing so, the system would be enhanced by giving a user the right king of control

for every situation wherein user can decide specific gestures from moment to moment. Thus user

is free to vary the level of control at any point in the trend of using virtual reality space.

As per claim 15, Moezzi discloses the invention substantially as claimed. Moezzi,

however, does not disclose the limitations of wherein each physical characteristic signal of a

simiar type is summed into a physical signal for each type and wherein a reaction for said physical

signal for said type is calculated, using said behavior model and said position information to an

overall reaction to generate a behavior vector;

Perlin discloses the limitations of wherein each physical characteristic signal of a simiar

type is summed into a physical signal for each type and wherein a reaction for said physical signal

for said type is calculated, using said behavior model and said position information to an overall

reaction to generate a behavior vector as the technique of the system uses the decision rule to

generate a weight between zero and one for each object. This list can be then generate a weighted

decision (see column 12, lines 25-28), builds a data structure containing the x,y,z displacement for

each such vertex (see column 5, lines 4-5), an author uses DOFs to build actions (see column 5,

lines 50-51), the user interface 50 allows a user to interact with both the Behavior Engine 30 and

Animation Engine 20 of an animated actor. The result of a user's actions can cause change in the

system anywhere from high level scripts to low level actions (see column 14 line 64 to column 14

line 1);

It would have been obvious to one having ordinary skilled in the art at the time the

invention was made to include the limitations of each physical characteristic signal of a simiar type

is summed into a physical signal for each type and wherein a reaction for said physical signal for

said type is calculated, using said behavior model and said position information to an overall

reaction to generate a behavior vector by Perlin for that of Moezzi's invention. By doing so, the

system would be enhanced by allowing user to collect the best decision based on weighted

decision result and then user is free to vary the level of control at any point in the trend of using

virtual reality space.

As per claim 16, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitations of wherein behavior model comprises, for each psychological factor, a list of parameters comprising a type of stimuli to which it responds, an order of the derivative of physical characteristic signal, a condition and a reaction equation and wherein said behavior vector is first calculated for each physical characteristic signal and then summed to generate an overall behavior vector;

Perlin discloses the limitations of wherein behavior model comprises, for each psychological factor, a list of parameters comprising a type of stimuli to which it responds, an order of the derivative of physical characteristic signal, a condition and a reaction equation and wherein said behavior vector is first calculated for each physical characteristic signal and then summed to generate an overall behavior vector as the technique of the system uses the decision rule to generate a weight between zero and one for each object. This list can then be used to generate a weighted decision (see column 12, lines 25-27); when an object is passed through a decision rule, a weighted sum is made of each of the values returned from the associated factors, modified by the scale assigned to the set of choices (see column 12, lines 52-55); f1, f2....fn are factors; i1, i2....in are influences(see column 12, lines 60-64); The fuzzy comparison is implemented as follow: $Y = W(InputValue - TargetValue/Spread...$ where y is the Fuzzy Value, and W is a bell curve weight Kernel(see column 13, lines 23-33);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitations of wherein behavior model comprises, for each

psychological factor, a list of parameters comprising a type of stimuli to which it responds, an order of the derivative of physical characteristic signal, a condition and a reaction equation and wherein said behavior vector is first calculated for each physical characteristic signal and then summed to generate an overall behavior vector by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by allowing user to collect the best result on calculated factor and then user is free to vary the level of control at any point in the trend of using virtual reality space.

As per claim 17, due to the similarity of this caim to that of claim 16, this claim is therefore rejected for the same reasons applied to claim 16.

As per claim 18, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of wherein behavior model comprises Phychological factors and wherein psychological factors are at least one of age factor, hunger, thirst, sleepiness, attention span and disability;

Perlin discloses the limitation of wherein behavior model comprises psychological factors and wherein psychological factors are at least one of age factor, hunger, thirst, sleepiness, attention span and disability as the technique of Behavior: Sleeping, Eating, Talking, Joking, Arguing, Listening, Dancing (see column 10, lines 9-10);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitation of by wherein behavior model comprises psychological factors and wherein psychological factors are at least one of age factor, hunger, thirst, sleepiness, attention span and disability Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by providing phychological factors to end user wherein end user can construct more factor on behavior model in virtual reality space.

As per claim 19, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of wherein vector is calculated using N extent of speed vector, F Phychological factor I acting on the nth derivative of the timulus, S Stimulus, and d Distance between actor and the stimulus;

Perlin discloses the missing limitations as the technique of as the technique of the system uses the decision rule to generate a weight between zero and one for each object. This list can then be used to generate a weighted decision (see column 12, lines 25-27); when an object is passed through a decision rule, a weighted sum is made of each of the values returned from the associated factors, modified by the scale assigned to the set of choices (see column 12, lines 52-55); f1, f2....fn are factors; i1, i2....in are influences(see column 12, lines 60-64) ; the results of the comparison is 1 if the Input Value is at the Target Value (or within the Target Range), and drops to 0 at a distance of Spread from the Target Value; The fuzzy comparison is implemented as

follow: Y= W(InputValue-TargetValue/Spread... where y is the Fuzzy Value, and W is a bell curve weight Kernel(see column 13, lines 23-33);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitations of wherein vector is calculated using N extent of speed vector, F Phychological factor I acting on the nth derivative of the timulus, S Stimulus, and d Distance between actor and the stimulus by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by calculating those factors in order to control behavior vector on virtual reality space.

As per claim 20, due to the similarity of this claim to that of psychological factor in claim 18, this claim is therefore rejected for the same reason apllied to claim 18.

As per claim 21, Moezzi discloses the invention substantially as claimed. Moezzi, however, does not disclose the limitation of behavior model comprises data concerning a current state for at least one psychological factor;

Perlin discloses the limitation of behavior model comprises data concerning a current state for at least one psychological factor as the technique of the last scripts are those that are most physical. They tend to include actual body actions, in response to a user's action and to the state of higher level scripts (see column 9, lines 42-64);

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include the limitation of behavior model comprises data concerning a current state for at least one psychological factor by Perlin for that of Moezzi's invention. By doing so, the system would be enhanced by include actual body actions, in response to a user's action and to state of higher level scripts, on virtual reality space.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicants are required under 37 C.F.R. § 1.111(c) to consder these references fully when respoing to this action. The documents cited therein teach particular user, his/her positions, and his/her behavior reation to the other users in virtual reality space.

7.   A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this letter. Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cuong T. Thai whose telephone number is 703-308-7234. The examiner can normally be reached on Monday-Friday from 7:30 AM to 4:00 PM.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Any response to this action should be mailed to:

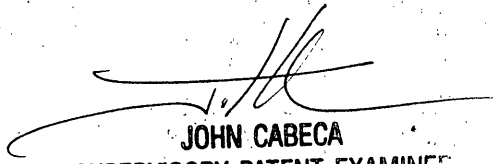Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Serial Number: 09/459,049

Art Unit: 2173

Cuong T. Thai

May 06, 2002

Notice of References Cited		Application No. 09/459,049	Applicant(s) GODOT HUARD ET AL.			
		Examiner CUONG T. THAI	Group Art Unit 2173		Page 1 of 1	

U.S. PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
	A	6285380	AUG/01/97	PERLIN ET AL.	345	473
	B	6270414	DEC/87/97	ROELOFS	345	156
	C	6057856	SEP/16/97	MIYASHITA ET AL.	345	435
	D	6002808	JUL/26/96	FREEMAN	382	288
	E	5977968	NOV/02/99	LE BLANC	345	764
	F	5926179	JUL/20/99	MATSUDA ET AL.	345	848
	G	5880731	MAR/09/99	LILES ET AL.	345	839
	H	5850352	DEC/15/98	MOEZZI ET AL.	364	514
	I	5732232	MAR/24/98	BRUSH, II ET AL.	345	751
	J	5563988	OCT/08/96	MAES ET AL.	345	421
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
	N						
	O						
	P						
	Q						
	R						
	S						
	T						

NON-PATENT DOCUMENTS

*		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
	U		
	V		
	W		
	X		

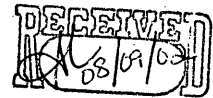* A copy of this reference is not being funished with this Office action.
(See Manual of Patent Examining Procedure, Section 707.05(a).)

Part of Paper No. 6

U.S. Patent and Trademark Office
PTO-892 (Rev. 9-96)

*U.S. GPO: 1997-417-381/62700

MS00006756

8-13-02
B.Hilliard

Filed by Facsimile (703) 746-7239

Signed Amendment for Entry in Patent Application File	
Examiner:	Cuong T. Thai
Technology Center:	2173
Serial Number:	09/459,049
Attny Dkt.:	14341-1us JA/IC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Godot HUARD et al.
Serial No.:	09/459,049
Filing date:	12/10/1999
Title:	INFLUENCING VIRTUAL ACTORS IN AN INTERACTIVE ENVIRONMENT
Examiner:	Cuong T. Thai Tel.: (703) 308-7234
SPE:	John Cabeca
Group Art Unit:	2173
Agent of Record:	James Anglehart Tel.: (514) 847-4244

Official

RECEIVED

COMMISSIONER FOR PATENTS,
Washington, D.C. 20231,
U.S.A.

RESPONSE TO NON-FINAL OFFICE ACTION

Sir:

In response to the Official Communication dated May 8, 2002, please amend the above-identified application as follows:

IN THE CLAIMS:

Kindly amend claims 1, 19 and 20 as follows. A marked-up copy of the amended claims is enclosed.

1. (amended) A method for generating a behavior vector for a virtual actor in an interactive theatre by interpreting stimuli from visitors, the method comprising:

providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;

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- 2 -

interpreting said sensor signals to provide at least one physical characteristic signal including position information, wherein said physical characteristic signal provides information on visitor activity and location within said theater area;

providing a behavior model for at least one virtual actor;

analyzing said at least one physical characteristic signal, a change over time of said physical characteristic signal and said behavior model for said at least one virtual actor to generate a behavior vector of said at least one virtual actor using said position information and said at least one physical characteristic signal, said behavior vector being generated in real-time;

whereby a virtual actor reacts and interacts, in real-time, with visitors depending on the visitors' actions and evolution of said actions.

19. (amended) A method as claimed in claim 18, wherein said behavior vector is calculated using

$$N = \Sigma \left(F_{i0}{}^{*}S_i(t) + F_{i1} \cdot S_i(t)/\delta t + F_{i2} \cdot S_i(t)/\delta t^2 \right) / d$$

Where: N = extent of the speed vector (V)

F_{in} = Psychological factor i acting on the nth derivative of the stimulus

S = Stimulus (Sonic, visual, etc.)

d = Distance between the actor and the stimulus.

20. (amended) A method as claimed in claim 18, wherein said behavior model comprises psychological factors, wherein said psychological factors are at least one of age factor, hunger, thirst, sleepiness, attention span and disability and wherein said list of parameters for the psychological factor of hunger is

Stimuli	Stimuli Type	Derivative Order	Condition	Reaction Equation
Fish passing	Visual	0	d<10	$-S / (d-10)$
Fish passing	Visual	1	v<20	$S / (v-20)^2$
Fish passing	Visual	2	a<2	$(0.5{*}S)/ (a-2)^2$

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-REMARKS-

The claim rejections indicated in the Examiner's action are as follows:

Claims	§112(2)	§103(a)	Status/References
19, 20, 22	X		Lack of antecedent basis
1-21		X	Moezzi et al. in view of Perlin et al.

Claim 19 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularity point out which of the vector's is being referred to by "said vector". The expression "said vector" was amended to read "said behavior vector" to overcome the Examiner's objection.

Claim 20 was rejected under 35 U.S.C. 112, second paragraph, because there was insufficient antecedent basis for "said list of parameters for the psychological factor of hunger". The Examiner also argued that claim 20 does not make sense when compared to claim 16 and it is not clear how the table is operated.

The contents of claim 18 were introduced into claim 20 to ensure proper antecedents for all terms of the claim. Claim 16 recites "a list of parameters comprising a type of stimuli to which it responds, an order of the derivative of said physical characteristic signal, a condition and a reaction equation" and claim 20 comprises a table, for the parameter of hunger, having fields for each of "Stimuli, Stimuli Type, Derivative Order, Condition and Reaction Equation". Applicants believe that claims 20 and 16 are clearly consequential and definite and request that the Examiner explain what is unclear and does not make sense to him.

Claim 22 was rejected under 35 U.S.C. 112, second paragraph, because it conflicts with the equation for hunger as recited in claim 20. Namely, the Examiner believes it is unclear that claim 22 recites the equation : Reaction = Hunger*Interest magnitude / (distance-10) while claim 20 recites the equation -S/(d-10). These are two ways of expressing the same equation. The distance is referred to as "d" in any physics handbook. The first equation explains the concept in a qualitative way, while the second equation explains it in an analytic way. Applicants believe that any person

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skilled in the art will understand these two forms of the equation to relate to the same mathematical concept.

Moezzi et al. describe a method and system for synthesizing immersive video or television images of a real-world scene from different angles and linking these images from the different angles to create a framework. A model is then created for the scene and allows to produce a video representing the scene from a particular angle chosen by the user. The cameras described in Moezzi et al. are therefore used to capture the images needed to create the model of the scene. The model is therefore a representation of the real-world scene. Moezzi et al. are only preoccupied by the fidelity of the reproduction of the real-world scene and do not provide virtual actors which interact with items of the real-world scene. There is no suggestion in Moezzi et al. to provide virtual actors which would interact with the items of the real-world scene.

Perlin et al. describe a system for creating virtual actors and their actions. Actions can be <u>triggered</u> by a user. The actions are pre-programmed using scripts and multiple scripts cannot be carried out simultaneously for a same actor. The virtual actors of Perlin et al. only interact with other virtual actors or items created to represent the user in the virtual world. For example, the user will be portrayed as a flying bat in the virtual world and the virtual actors will interact with the flying bat. The virtual actors are not interacting directly with the users according to the physical characteristic detected from the user's position. Moreover, the virtual actor will perform the full script triggered by the user's portrayal in the virtual world prior to carrying out a second script of actions to perform. This will prevent a smooth flow of actions since scripts are run sequentially. The actor will, for example, start running away from the flying bat until he has reached an adequate location away from the original position of the bat even if the user has walked away and stopped being portrayed as a flying bat. The virtual actor will then realize that the flying bat is no longer present and may return to his initial position. The script carried out by the actor is therefore not influenced by the evolution of the user's interaction but is rather triggered by a user and carried out until completion.

None of these references and the other references located discuss the evolution of a stimulus from a user. Since they are all using scripts or pre-programmed animations as responses to stimuli, their systems cannot react in real-time to stimuli evolution.

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None of these references discloses a stimuli vector, which represents the desired speed and direction that a virtual entity would tend to follow according to the stimuli it faces. In consequence, none of the references located disclose using the physical characteristic signal and a change over time of the signal to ensure that the behavior vector is generated in real-time from the current physical characteristic detected and the evolution of it. In Applicants' system, the stimuli are computed at every iteration and evolve through time.

Amendments carried out to claim are clearly supported by the original specification at pages 5 and 6.

Claim 1 is clearly patentable in view of the references located. Because claims 2 to 22 depend on claim 1, these are also clearly patentable in view of the references located.

Additionally and preferably, in Applicants' invention, the behavior vector comprises a direction and a speed towards which the virtual actor decides to go. The displacement of the vertices is created by the computation of the physical properties associated with the virtual entity. Clearly, this is not taught or suggested by any of the references located.

Additionally, claims 19, 20 and 22 are clearly not anticipated or suggested by the prior art. Indeed, none of the references located provide equations to calculate the behavior vector which use the derivative of the stimulus and the distance between the actor and the stimulus. These parameters clearly affect the way the actor reacts to the stimulus and are a clear departure from the teachings of Moezzi et al. and Perlin et al. Simply calculating a weighted sum of the factors does not take into account the distance between the stimuli and the actor and does not take into effect the change in stimuli. These two parameters render the calculation of the behavior vector more complicated but generate a response to the stimuli which is clearly more natural and encompassing.

In view of the foregoing, reconsideration of the rejection of claims 1-22 is respectfully requested. It is believed that claims 1-22 are allowable over the prior art, and a Notice of Allowance is earnestly solicited.
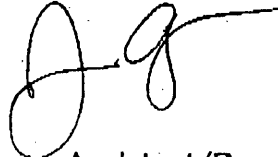
Ser. No. 09/459,049

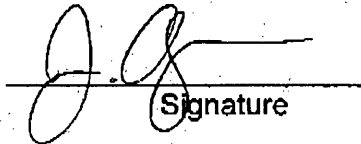- 6 -

Respectfully submitted,
Godot HUARD et al.

By:

James Anglehart (Reg. 38,796)

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the
Patent and Trademark Office on the date shown below.

<u>JAMES ANGLEHART, Reg. No. 38,796</u>
Name of person signing certification

_____   <u>August 8, 2002</u>
(Signature)   Date

Ser. No. 09/459,049

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MARKED-UP COPY OF CLAIMS

~~1.~~2.   (amended) A method for generating a behavior vector for a virtual actor in an interactive theatre by interpreting stimuli from visitors, the method comprising:

providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;

interpreting said sensor signals to provide at least one physical characteristic signal including position information, wherein said physical characteristic signal provides information on visitor activity and location within said theater area;

providing a behavior model for at least one virtual actor;

analyzing said at least one physical characteristic signal, a change over time of said physical characteristic signal and said behavior model for said at least one virtual actor to generate a behavior vector of said at least one virtual actor using said position information and said at least one physical characteristic signal, said behavior vector being generated in real-time;

whereby a virtual actor reacts and interacts, in real-time, with visitors depending on the visitors' actions and evolution of said actions.

19. (amended) A method as claimed in claim 13, wherein said behavior vector is calculated using

$$N = \Sigma \left(F_{i0}{}^*S_i(t) + F_{i1} \cdot S_i(t)/\delta t + F_{i2} \cdot S_i(t)/\delta t^2 \right) / d$$

Where: N = extent of the speed vector (V)

F_{in} = Psychological factor i acting on the nth derivative of the stimulus

S = Stimulus (Sonic, visual, etc.)

d = Distance between the actor and the stimulus.

20. (amended) A method as claimed in claim 16, wherein said behavior model comprises psychological factors, wherein said psychological factors are at least one of age factor, hunger, thirst, sleepiness, attention span and disability and wherein said list of parameters for the psychological factor of hunger is

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Stimuli	Stimuli Type	Derivative Order	Condition	Reaction Equation
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Fish passing	Visual	1	v<20	$S / (v-20)^2$
Fish passing	Visual	2	a<2	$(0.5*S)/ (a-2)^2$

Transaction History Date __2002-08-16__

Date information retrieved from USPTO Patent
Application Information Retrieval (PAIR)
system records at www.uspto.gov.

~m~

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

09/459,049

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER

ART UNIT	PAPER NUMBER
	# 9

DATE MAILED:

This is a communication from the examiner in charge of this application.
COMMISSIONER OF PATENTS AND TRADEMARKS.

NOTICE OF ALLOWABILITY

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

☒ This communication is responsive to __AUGUST /09 /2002   AMENDMENT A__.

☒ The allowed claim(s) is/are __1-22__.

☐ The drawings filed on _____ are acceptable as formal drawings.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

☐ All ☐ Some* ☐ None of the:
    ☐ Certified copies of the priority documents have been received.
    ☐ Certified copies of the priority documents have been received in Application No. _____.
    ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE FOR SUBMITTING NEW FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION. This three-month period for complying with the REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL is extendable under 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☒ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No._____.

☐ including changes required by the proposed drawing correction filed on _____ , which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment or in the Office action of Paper No._____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this notice should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). __8__

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☐ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for the Deposit of Biological Material

☐ Examiner's Statement of Reasons for Allowance

RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173

PTOL-37 (Rev. 11/00)

MS00006769

UNITED STATES PATENT AND TRADEMARK OFFICE

NOTICE OF ALLOWANCE AND FEE(S) DUE

20988   7590   08/16/2002

OGILVY RENAULT
1981 MCGILL COLLEGE AVENUE
SUITE 1600
MONTREAL, QC H3A2Y3
CANADA

EXAMINER
THAI, CUONG T

ART UNIT	CLASS-SUBCLASS
2173	345-863000

DATE MAILED: 08/16/2002

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,049	12/10/1999	GODOT HUARD	14341-1US-JA	9626

TITLE OF INVENTION: INFLUENCING VIRTUAL ACTORS IN AN INTERACTIVE ENVIRONMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$640	$0	$640	11/18/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004.

MS00006770

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Box ISSUE FEE
Commissioner for Patents
Washington, D.C. 20231
Fax (703)746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

| 20988 | 7590 | 08/16/2002 |

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MONTREAL, QC H3A2Y3
CANADA

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

	(Depositor's name)
	(Signature)
	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,049	12/10/1999	GODOT HUARD	14341-1US-JA,	9626

TITLE OF INVENTION: INFLUENCING VIRTUAL ACTORS IN AN INTERACTIVE ENVIRONMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$640	$0	$640	11/18/2002

EXAMINER	ART UNIT	CLASS-SUBCLASS
THAI, CUONG T	2173	345-863000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❏ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❏ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent)　❏ individual　❏ corporation or other private group entity　❏ government

4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):
❏ Issue Fee	❏ A check in the amount of the fee(s) is enclosed.
❏ Publication Fee	❏ Payment by credit card, Form PTO-2038 is attached.
❏ Advance Order - # of Copies _____	❏ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature) _____　(Date) _____

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMIT THIS FORM WITH FEE(S)

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004. OMB 0651-0033　　U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,049	12/10/1999	GODOT HUARD	14341-1US-JA	9626

	EXAMINER
20988 7590 08/16/2002	THAI, CUONG T

OGILVY RENAULT
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MONTREAL, QC H3A2Y3
CANADA

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 08/16/2002

Determination of Patent Term Extension under 35 U.S.C. 154 (b)
(application filed after June 7, 1995 but prior to May 29, 2000)

The patent term extension is 0 days. Any patent to issue from the above identified application will include an indication of the 0 day extension on the front page.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004.

MS00006772

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,049	12/10/1999	GODOT HUARD	14341-1US-JA	9626

		EXAMINER

20988   7590   08/16/2002

OGILVY RENAULT
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SUITE 1600
MONTREAL, QC H3A2Y3
CANADA

THAI, CUONG T

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 08/16/2002

Notice of Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking, 67 Fed. Reg. 30634, 30636 (May 7, 2002). Although a change to the amount of the publication fee is not currently proposed for October 2002, if the issue fee or publication fee is to be paid on or after October 1, 2002, applicant should check the USPTO web site for the current fees before submitting the payment. The USPTO Internet address for the fee schedule is: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Effective October 1, 2002, 37 CFR 1.18 is proposed to be revised to change the patent issue fees as set forth below. As stated above, the final fees may be a different amount, and applicant should check the web site given above when paying the fee.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

By a small entity (Sec. 1.27(a))--$655.00
By other than a small entity--$1,310.00

(b) Issue fee for issuing a design patent:

By a small entity (Sec. 1.27(a))--$235.00
By other than a small entity--$470.00

(c) Issue fee for issuing a plant patent:

By a small entity (Sec. 1.27(a))--$315.00
By other than a small entity--$630.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004.

MS00006773